



Telemetry Group

Recorder and Reproducer Committee

RCC-TG Progress on Recorder Standards

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Recorder/Reproducer Committee

- PURPOSE
 - Address telemetry standards and test methods associated with data recorders, media, multiplexers, and reproducers
- RESPONSIBILITY
 - IRIG 118, VOL III
 - IRIG 106, Chapters 6 & 7, Appendices D, G, L
 - IRIG 106, Chapter 10 (Pinksheet)
 - IRIG 106, Part II, Chapter 5 (To be accomplished)
 - IRIG 107



Recorder/Reproducer Committee

MEMBERSHIP

Space and Missile System Center (Vandenberg AFB)	Ken Schoeck
Air Force Flight Test Center (Edwards AFB)	Tim Chalfant
Air Combat Command (Eglin AFB)	Al Berard
Gulf Test Range (Tyndall AFB)	Jeff Heckerson
Naval Air Warfare Center (Aircraft Div, Pax River)	Joe Lloyd
Naval Air Warfare Center (Weapons Div, Pt. Mugu)	Rolando Chinaea
Naval Sea Warfare Center (Port Hueneme)	Jose Martinez
NASA (Goddard Space Flight Center)	Bill Poland
PMRF (Kauai)	Gordon Mattos



Current Standards

IRIG 106, Chapter 6

- **Instrumentation Magnetic Tape**
- **Longitudinal Analog Recorders**
- **ID-1 Digital Cassette Recorders**
- **VLDS Digital Cassette Recorders**
- **Solid State Recorders**
- **ADARIO Mux/Demux**
- **ARMOR Mux/Demux**

New Standards

- TG 47 Recorder Command and Control Mnemonics
IRIG 106, Chapter 6 Section 18
(Pinksheet)
- TG 56 SSR - IRIG 106, Chapter 10 (Pinksheet)
- TMATS Addendum - IRIG 106, Chapter 9
(Pinksheet)
- ??



Command and Control Mnemonics

Proposed Addition to IRIG 106, Chapter 6

TG47

- Command and Control Mnemonics
 - Any Type of Data Recorder
 - tape
 - solid state
 - optical
 - Slanted to Benefit Range Operators
 - Common Command Set
 - Device Specific Commands



Solid-State Recorders Interface

Proposed Addition to IRIG 106, TG 56 Chapter 6

- Input/Output Interfaces/Protocols
- Device Packaging
- Recommendations on Interconnection and Module Packaging for a Standard Solid-State Recorder
- Data Format
- Status:
 - Following STANAG 4575 (in NATO Ratification cycle)
 - Updating IRIG 106 with a new chapter - Chapter 10
 - Pink sheet in range and industry review



Solid-State Recorder Standard

Proposed Addition to IRIG 106, Chapter 10

- Fiber Channel as download means or mechanism
- Data File Structures
- Index File
- Packet Structure Definition
- User Defined Message Types
- Clock Rates
- Video Compression and Transmission
- TMATS Issues
 - Pink sheet in committee review



New TASKS UNDER CONSIDERATION

- Disk Based Recorder Study
 - File Formats
 - FAT32
 - NTS
- TMATS Registry Process
 - Vendor Specific Device Attributes



Future Activities

- Committee Realignment
- New Technologies
 - Higher capacities, transfer rates, smaller size
 - COTS Devices
 - Advanced Technologies
 - Opticals, Crystals, Proteins
 - Molecular, Nano-Tubuals
- DoD Ranges must be able to interoperate



FUTURE DIRECTION for Recorders and Reproducers

- **The committee is in need of help**
 - **Ranges: studies, future scan, and committee work**
 - **Industry: assistance, technology concepts, direction**
- Please contact myself or a member in your area if interested in joining these efforts.**